EUCROSIA STRICKLANDII VAR. MONTANA AND THE IDENTITY OF PHAEDRANASSA LOXANA (AMARYLLIDACEAE)

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Recent examination of four specimens received on loan for the Flora of Ecuador project appear to represent a new variety of E. stricklandii (Baker) Meerow. Far more importantly, the discovery of this variety may resolve a vexing taxonomic problem in Phaedranassa.

Eucrosia stricklandii (Baker) Meerow var. **montana** Meerow, var. nov.

Varietas nova a varietas typica perianthio roseo et habitate montana differt. TYPE: Ecuador, Loja, below Cangonamá towards Panamerican Hwy w of Catacocha, on dry roadbank, 1800-2000 m, 1 Jan 1981, Balslev 1337 (holotype: NY!).

?Phaedranassa loxana Ravenna. Pl. Life 25: 57. 1969. (This binomial was presented as a new name for P. chloracra sensu Lindley without citation of any specimens).

Bulbous geophyte to 5-6 dm tall. Bulb ellipsoid, 3 X 4-4.5 cm; neck short, 1-3 cm long, ca 7 mm wide; tunics brown. Leaves hysteranthous, or ocassionally emerging with the scape, imperfectly known, petiolate, the lamina elliptic. Inflorescence umbellate; scape slender, 3-6 dm tall, 4-5 mm diam proximally, 2-3 mm diam distally, terminated by two marcescent bracts that enclose the flowers before anthesis; bracts ca 21 mm long, ca 7 mm wide, lanceolate; inner bracteoles 10-13 mm long, ca 1-2 mm wide, linear. Flowers 5-7(-10), ca 3 cm long, pedicellate, funnelform-tubular, weakly zygomorphic; perianth tube subcylindrical, 9-10 mm long, ca 3 mm wide at the throat, constricted proximally, green for most of its length, distally concolorous with the tepals; tepals 6 in 2 series spreading slightly at the apices to ca 7 mm wide, lanceolate-spatulate, subequal, pink; outer tepals 18-19 mm long, minutely apiculate, inner tepals 16-17 mm long, obtuse; all ca 3 mm wide. Stamens 6, connate proximally into a conspicous staminal cup; cup ca 1 cm long, with a deep oblong sinus on the dorsal side, irregularly cleft between the free portions of the filaments, edentate, slightly declinate, with a ridge of 6 globose nectar glands at the base, glands 1 mm diam; filaments narrowly subulate, 6-8 mm long, 2 exserted < 2 mm from the limb, the remaining four included; anthers ca 2 mm long, oblong. Style ca 35 mm long, filiform, exserted ca 5 mm from the limb; stigma capitate, minute, ca

0.5 mm wide. Ovary globose-ellipsoid, 3-4 mm diam; ovules axile, biseriate, numerous in each locule, flattened. Fruit and seed unknown.

ADDITIONAL MATERIAL EXAMINED: ECUADOR. **Loja:** Catamayo, 2800 m, 1876, Andre 4534 (K); no locality, 2000-2400 m, Oct-Nov 1888, Lehmann 4851 (K); Catamayo, 1400-1600 m, Nov 1888, Lehmann 4852 (K).

Eucrosia stricklandii var. montana differs from var. stricklandii by its pink perianth, flowering season, and, more significantly, by its altitudinal range of 1600-2800 m. It occurs in quebradas and along roadsides in the dry, grassy, scrub vegetation of Loja province (Fig. 1). It flowers from October-January. Variety stricklandii has red flowers, and inhabits the seasonally dry, Ceiba forests of El Oro, Guayas, and Manabi provinces in Ecuador (Fig. 1), always below 1000 m elevation. Its flowering season is August-October. In other respects, the two varieties are very much alike. Clearly, var. montana represents a geographic and ecological segregate of the species. An illustration of the species (var. stricklandii) may be found in Meerow and Dehgan (1985) as E. brachyandra Meerow & Dehgan.

Like so many species of Amaryllidaceae described in the 19th century, the plant originally described as Phaedranassa chloracra (Herbert) Herbert has a confusing taxonomic history. Ravenna (1969), in a synopsis of Phaedranassa Herbert, placed P. chloracra (Herbert) Herbert into synonomy with P. dubia (H.B.K.) Macbr. Herbert (1837) applied the basionym Phycella chloracra Herbert to the plant originally described as Haemanthus dubius H.B.K., from the Rio Guallabamba valley north of Quito. Herbert listed the latter under synonomy with Phycella chloracra, but ignored the priority of the epithet dubius.

In the same volume of Edwards' Botanical Register in which Herbert (1845) transfered Phycella chloracra into Phaedranassa, Lindley (1845) presented an illustration of a plant as Phaedranassa chloracra, citing an unnumbered Hartweg collection from Saraguro in Loja Province of Ecuador. Though he appears to have applied the name to a plant different than Herbert's, Lindley merely repeated Herbert's description! It is unclear whether Lindley actually saw material of the Hartweg collections to which he referred. The accompanying figure of the plant could as well represent several different species of Phaedranassa, a number of which differ only cryptically from each other.

Ravenna (1969) recognized P. chloracra sensu Lindley as a valid binomial (i.e. as P. chloracra Lindl.). He further chose to assign it a new name, P. loxana Ravenna. A detailed description accompanies the nomenclatural change. Though precise measurements of various vegetative and floral parts are provided in the description, no specimens are cited, and the distribution information is vague: "Ecuador, region of Loja" (Ravenna, 1969, p. 57).

There appears to be no specimen for P. chloracra from Loja province among the Hartweg collections I have received on loan from Kew.

In fact, I have not found any collections of Phaedranassa from Loja province among loans from numerous herbaria. In my own field studies, I have observed that Phaedranassa becomes increasingly rare as one travels south in Ecuador, and I have not encountered any populations in Loja.

Eucrosia stricklandii var. montana, however, occurs in the same vicinity that Hartweg supposedly collected in Loja province (Fig. 1). The variety also inhabits elevations more characteristic of Phaedranassa species than of most Eucrosia (Meerow, 1985). Moreover, the species has historically been treated incorrectly as a species of Phaedranassa (Bentham and Hooker, 1883; Ravenna, 1969). The pink coloration of the perianth of var. montana would add to the confusion; most Phaedranassa are pink-flowered. Thus there appears to be a strong liklihood that the Hartweg collection to which Lindley (1845) refered actually represented E. stricklandii var. montana. Unfortunately, specimens of this Hartweg collection have not been found.

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Literature Cited

Bentham, G. and J. D. Hooker. 1883. Genera Plantarum, vol. 2. Reeve and Co., London.

Herbert, W. 1837. Phycella chloracra. In Amaryllidaceae, p. 155. James Ridgeway and Sons, London.

_____. 1845. Phaedranassa chloracra. Edwards' Bot. Reg. 31, misc. 23: 16.

Meerow, A. W. 1985. A new species of Eucrosia and a new name in Stenomesson (Amaryllidaceae). Brittonia 37: 305-309.

_____. and B. Dehgan. 1985. A new species and a new combination in the genus Eucrosia (Amaryllidaceae). Brittonia 37: 47-55

Ravenna, P. F. 1969. Contributions to South American Amaryllidaceae -- III. 1. Synoptic treatment of the genus Phaedranassa. Pl. Life 25: 55-62.

Figure 1. Distributions of Eucrosia stricklandii var. stricklandii and E. s. var. montana in Ecuador.